

REMARKS

Claims 72, 82, 92, 102, 112, 122, 132, and 133 have been amended. Claims 121 and 123-124 are cancelled. Claims 72-120, 122, and 125-141 remain  
5 in the application. Further examination and reconsideration of the application, as amended, is hereby requested.

In Section 3 of the Office Action, the Examiner stated that the Applicant has not complied with one or more conditions for receiving the benefit of an earlier  
10 filing date under 35 USC 120 because the specification must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet. On April 20<sup>th</sup>, 2004 the Applicants' representative called the Examiner to discuss this objection. No claims or prior art were discussed. The Applicants' representative wishes to thank the Examiner for  
15 clarifying this issue and pointing out the particular section in the MPEP which dealt with this issue.

Accordingly, the Applicants have amended the specification to include this specific reference. Applicants note that the benefit was claimed on the transmittal letter to include the required specific reference and was acknowledged by the  
20 USPTO Office on the filing receipt. Accordingly, according to MPEP 201.11(III)(D), no petition under 37 CFR 1.78(a) is believed required.

In Section 5 of the Office Action, the Examiner rejected claims 132-141 under 35 USC 112, 2<sup>nd</sup> Paragraph as being indefinite ... for failing to provide  
25 proper antecedent basis in claim 132 for "vertical bit lines" and for being unclear in using the limitation "a substrate" in claim 133. Applicants have amended claims 132 and 133 to correct these problems. Withdrawal of this rejection is respectfully requested.

In Section 7 of the Office Action, the Examiner rejected claims 72, 82, 92, and 122 under 35 USC 102(a) as being anticipated by Toyama. Applicants have amended claims 72, 82, 92, and 122 to more particularly define and distinguish  
30 their invention over the art made of record. Applicants have amended claims 72, 82, 92, and 122 to include the limitation of having "a switching device disposed" on the vertical bit or select lines. Support for these limitations is found throughout  
35 the specification and in particular on page 20, line 26 to page 21, line 12 and Figs. 21 and 22. Applicants have used the term "switching element" to be consonant with the specification and to not be confusing with the control element term used

in conjunction with the memory cell elements in some claims. These limitations in combination with the other claim elements are not disclosed, taught, or suggested by the art made of record. Withdrawal of this rejection is respectfully request

5 In Section 9 of the Office Action, the Examiner rejected claims 81, 91, 101, 102, 111, 112, and 121 under 35 USC 103(a) as being unpatentable over Toyama.

Claims 81, 91, 101, and 111 depend on independent claims 72, 82, 92, and 102, respectively, as amended and thus are deemed patentable based at least on  
10 the patentability of their respective parent claim.

Claim 102 has been amended to include the limitation of “a switching element disposed on the vertical bit line.” This limitation in combination with the other claim elements is not taught, disclosed, or suggested by the art made of record.

15 Claim 112 has been amended to include the limitations of “a plurality of horizontal top sub-column connects,” “a plurality of horizontal bottom sub-column connects,” and wherein “vertical bit lines are formed in more than one pillar and are interconnected by one of the plurality of top sub-column connects and one of the plurality of bottom sub-column connects, wherein the every other pillar is  
20 connected to one of a top sub-column connect or a bottom sub-column connect.” These limitations are not disclosed, taught, or suggested by the art made of record.

Claim 121 has been cancelled.

Withdrawal of the this rejection under 35 USC 103(a) is respectfully  
25 requested for claims 81, 91, 101, 102, 111, and 112, as amended.

In Section 10 of the Office Action, claims 73-77, 80, 83-87, 90, 93-97, 100, 103-107, 110, 113-117, 120 and 125-129 were rejected under 35 USC 103(a) as being unpatentable over Toyama. These claims are deemed patentable based at  
30 least on the patentability of their respective parent claims. Withdrawal of this rejection under 35 USC 103(a) is respectfully requested.

In Section 11 of the Office Action, claims 78, 79, 88, 89, 98, 99, 108, 109, 118, 119, 130, and 131 were rejected under 35 USC 103(a) as being unpatentable over Toyama in view of Kubota. These claims are deemed patentable based at least on the patentability of their respective parent claims.

5 Withdrawal of this rejection under 35 USC 103(a) is respectfully requested.

In Section 12 of the Office Action, claim 123 was rejected under 35 USC 103(a) as being unpatentable over Toyama in view of Johnson et al. Applicants have cancelled claim 123.

10 In Section 13 of the Office Action, claim 124 was objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent format including all of the limitations of the base claim and any intervening claims. Applicants have amended claim 124's parent claim 122 to include the limitations of claim 124. However, as noted earlier, "switching  
15 element" is being used in place of "control element" to be more consonant with the specification and to prevent confusion with the "control element" found in the memory device in some of the dependent claims. Applicants believe claim 122 (and likewise claims 72, 82, 92) are patentable as amended and their allowance is respectfully requested. Claims 123-124 has been cancelled.  
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In Section 14 of the Office Action, claims 132-141 were indicated as allowable if rewritten or amended to overcome the rejections under 35 USC 112, 2<sup>nd</sup> paragraph. Applicants wish to thank the Examiner for the indication of  
25 allowance for claims 124 above and claims 132-141. Applicants have amended claims 132 and 133 accordingly and thus believe that claims 132-141 (and similarly claims 112-120) are in condition for allowance and such allowance is respectfully requested.

30 The prior art made of record but not relied upon by the Examiner has been reviewed, but is no more pertinent to Applicants' invention than the cited references for the reasons given above.

Applicants believe their claims as amended are patentable over the art of record, and that the amendments made herein are within the scope of a search properly conducted under the provisions of MPEP 904.02. Accordingly, claims 72-120, 122, and 125-141 are deemed to be in condition for allowance, and such allowance is respectfully requested.

If for any reason the Examiner finds the Application other than in a condition for allowance, the Examiner is respectfully requested to call Applicants' undersigned representative at the number listed below to discuss the steps necessary for placing the application in condition for allowance.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 08-2025. Should such fees be associated with an extension of time, Applicants respectfully request that this paper be considered a petition therefore.

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